

County of San Diego's Business Process Re-Engineering



*A success story in achieving
workforce productivity
by improving
Operational Excellence*

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Health & Human Services Agency



BUSINESS **P**ROCESS **R**E-ENGINEERING

Managing Technology 2006:

Policy, Politics and Leadership

“A Different Way of Working: Empowering the Mobile Workforce & Improving Public Health”

Agenda

Business Process Re-engineering

Helen Robbins-Meyer

Mobile Remote Workforce Project

Nick Macchione

Questions and Answers

Helen and Nick



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County Defined Circa 1997

- Population of 2.7 million
- Budget of \$2.4 billion
- New CAO hired from Private Sector
- Success in Privatizing Solid Waste
- Launch of Managed Competition and Reengineering Program



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IT Environment (Back Then...)

- Unclear responsibility for system failures
- Uneven distribution of technology across dept's
- Need for standardization and integration
- Frustrated workers and managers
- Business info for decision-making often unavailable → Innovation handicap
- Difficulty recruiting & retaining IT staff
- Limited public access and e-business

Daily Technology Failures!



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Decentralized IT



Centralized IT

- 17 Separate Help Desks
- 5 disparate e-mail systems
- Multiple unprotected data centers and distributed servers
- No integrated security systems
- Every imaginable desktop configuration and operating system
- Multiple non-integrated networks
- No viable accounting for software licensing
- Limited sharing of hardware and software systems between business units
- No desktop computer and server refresh cycle (purchased as \$ available)
- Distributed responsibility for IT
- Operational issues dominated IT managers time
- Fragmented approach to IT Investments
- Limited and Inaccurate hardware and software asset inventories

- 1 Integrated e-mail system
- 1 Centralized Help Desk
- 21,000 standard and integrated phones
- 1 Integrated Network
- 1 Hardened and protected data center
- Integrated security monitoring and protection
- 12,000 standard state-of-the-art desktop computers with a single operating system
- 100% software licensing accuracy and accountability
- Enterprise (shared) servers and applications
- 36 month refresh on all desktop computers
- 60 month refresh on all servers
- 61% reduction in the # of trouble tickets
- Strategic IT planning consumes most of the IT managers time



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- **First four - five years** of the outsourcing engagement were focused on getting a unified and predictable IT environment (Infrastructure) and governing with an enterprise focus...
- With the infrastructure solid we have shifted the focus to **renovating our business processes re-engineering (BPR) for delivering services utilizing information technology**. This is the place where we can actually improve services to our citizens.



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The IT Roadmap

- The County's Strategic Plan provides for Kids, Safe and Livable Communities and the Environment...
- We have an expanding population and declining budgets which demands...
 - IT initiatives that address making work less labor intensive...
 - Business Applications that focus on citizen centric government...
 - Information Technology human resources that are as state-of-the-art as our hardware...



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BPR Imperative

- Continue to make additional services available via the Internet → e-gov't
- Improve the total experience of building within the County
- Renovate all back office accounting functions
- ***Give mobile County workers more robust IT tools, including wireless capabilities, to allow more efficient use of human resources in the field***



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Mobile Remote Workforce **A State of the Art Solution**

Putting Technology to Work!



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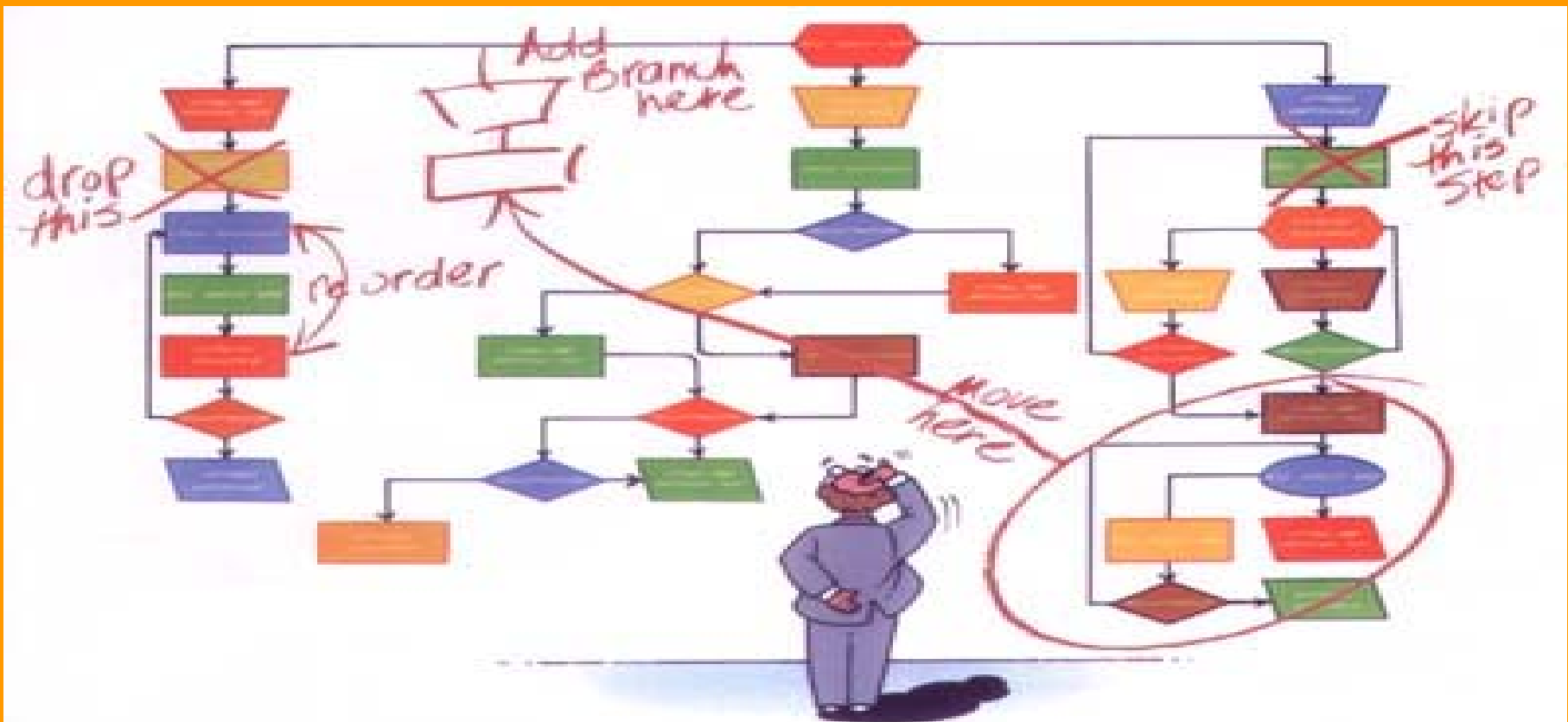
Discussion

- Challenge → Mission → Objectives
- Business Process Reengineering
- Outcomes
- Return on Investment
- Next Steps
- Lessons Learned



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Challenge





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Mission

*Achieving operational excellence by
improving workforce productivity in
county Public Health Centers*



Increase the time public health nurses devote to helping customers by reducing time spent on administrative tasks.



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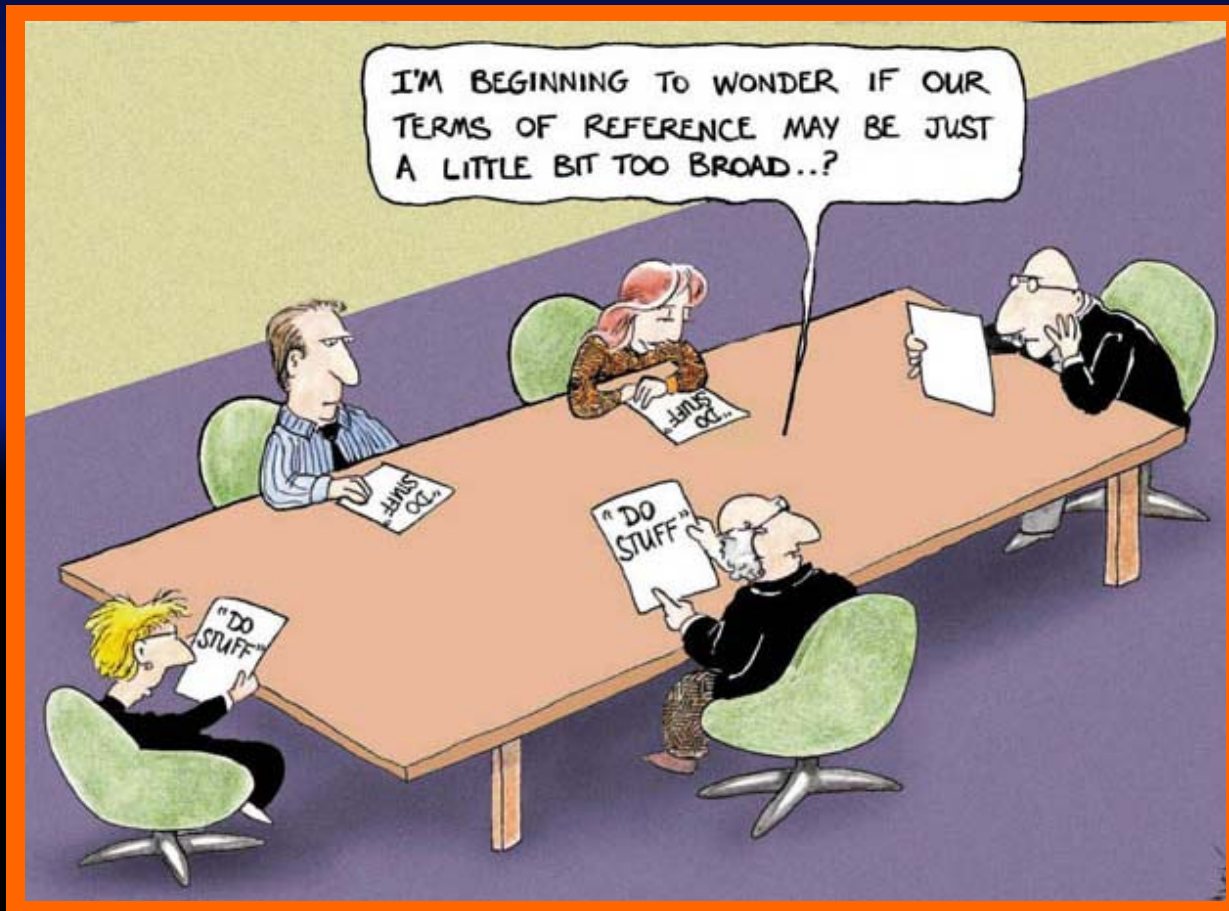
Guiding Principles

- **Technology follows function**
- **Active employee participation**
- **Value added for employees & customers**
- **Fiscally sustainable**
- **Uniform standards**
- **Transferable innovation**



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BPR Framework



Strategic Planning

- Project Mgmt Team
- Deep Dive
- Process Mapping

Motivation, Rewards, & Recognition

- Organizational Culture Change
- Stakeholder's Benefit

Functional Threading

County
Departments

Operational Planning

- Workflow Redesign
- Financial Analysis

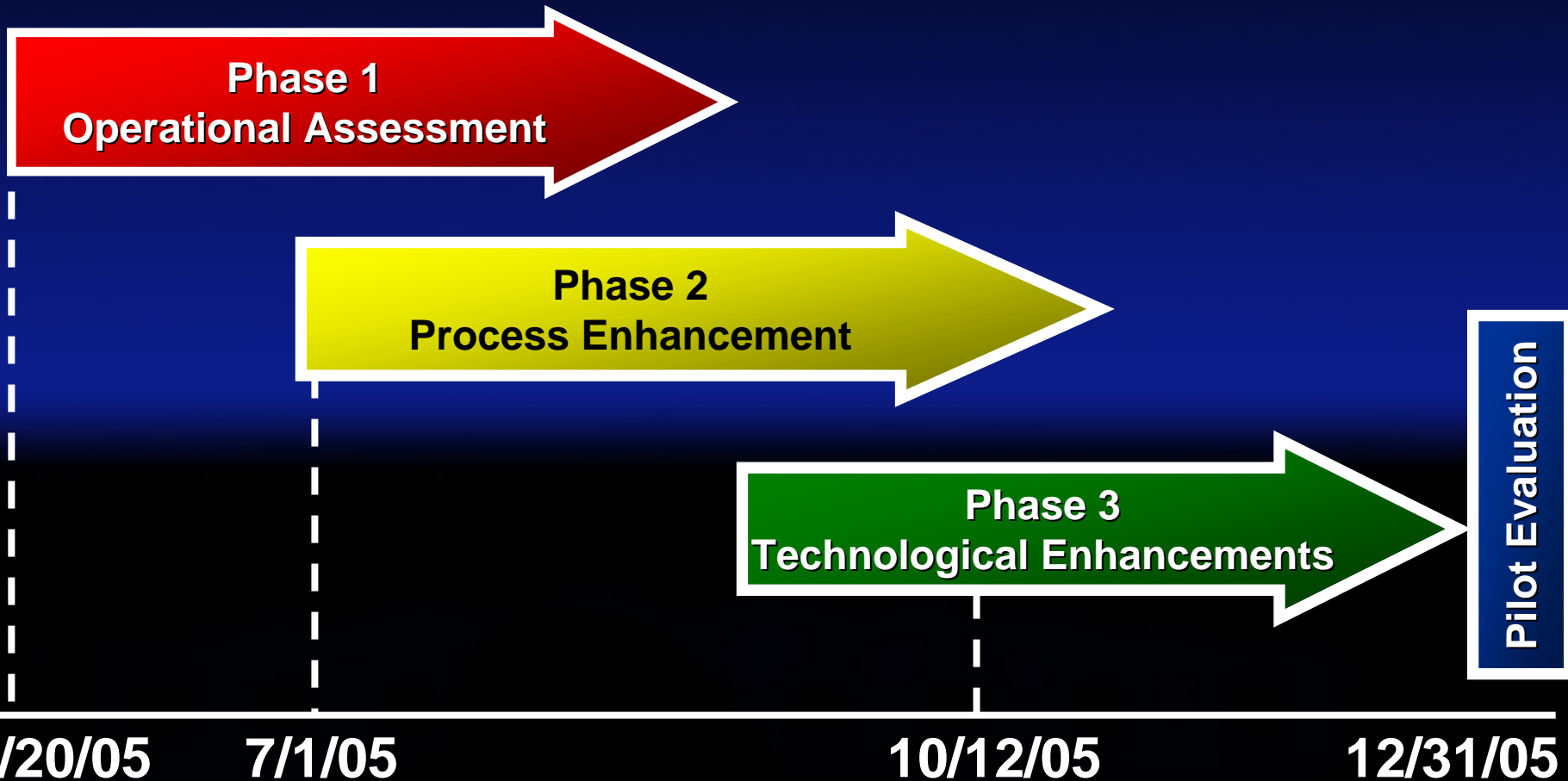
Monitoring & Control

- Pilot/Control Group
- Independent Evaluation



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BPR Elements in Action





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Phase 1: Operational Assessment

- **Referrals**
 - Incomplete/Inappropriate
 - Delay in assignment
- **Travel**
 - Time Consuming
 - Inefficient
 - Redundant
- **Administrative Tasks**
 - Office time required
 - Duplicate entries





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Phase 2: Process Enhancement

WE COULD DESIGN THE PRODUCT WITH A SIMPLE POINT-AND-CLICK INTERFACE...



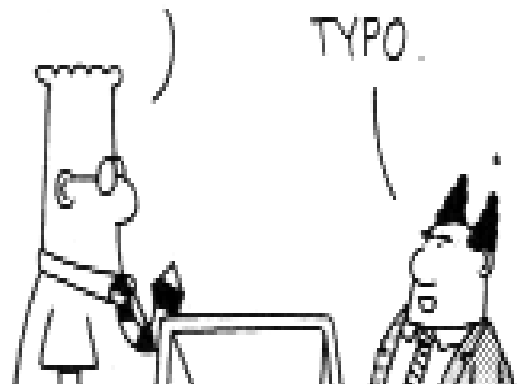
5 Adams E-Mail: SCOTTADAMS@aol.com

OR WE COULD REQUIRE THE USER TO CHOOSE AMONG THOUSANDS OF POORLY DOCUMENTED COMMANDS, EACH OF WHICH MUST BE TYPED EXACTLY RIGHT ON THE FIRST TRY.



BEAR IN MIND, WE'LL NEVER MEET A CUSTOMER OURSELVES.

MAKE IT SO THEY HAVE TO REBOOT AFTER EVERY TYPO.



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Phase 3: Technological Enhancements

- Web-Based Referral System



- Database
Public Health Nurses
in the Community



- Electronic Tablets





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Ideas into Action

Public Health Nurses In the Community (PHIX) - Database





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Step 1 - Referring Agency Procedure





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Referral Registration

County of
San Diego



Welcome to the County of San Diego Public Health Nursing pilot web referral site. This pilot site is limited in function to accept referrals for potential clients in the North Inland Public Health region only. The initial pilot period is from July 1, 2005 until December 31, 2005. To use this site you must first be registered by the North Inland Public Health region. If your agency's name does not appear in the drop down box below then your agency is not registered. Please contact Kitty Roche, Public Health Nursing Supervisor for North Inland region at (760) 740-4020 for more information.

Select your Agency from the list:

Palomar Medical Center

Password:

Next



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Client Information

County of
San Diego



Add Referral

Query Status

Logout

CLIENT INFORMATION

First Name: Maria

Middle Initial: N

Last Name: Doe

Address: Sample

City: Vista

City and State will be automatically filled in when you select a zip code.

State: CA

Zip Code: 92081

For the pilot program, Zip codes are limited to North Inland region only.

Phone: 760-000-0000

nnn-nnn-nnnn

☐ No phone available

DOB: 3/14/87

mm/dd/yyyy

Gender: Female

Language: English

Reason for referral:

2nd pregnancy - history of drug abuse. 1st child was premature with complications. No ongoing prenatal care

Back

Next



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Referral Registration

County of
San Diego



Add Referral

Query Status

Logout

Your request has been received and will be reviewed by Public Health. The reference number for the request is **FD-190-11AF**.

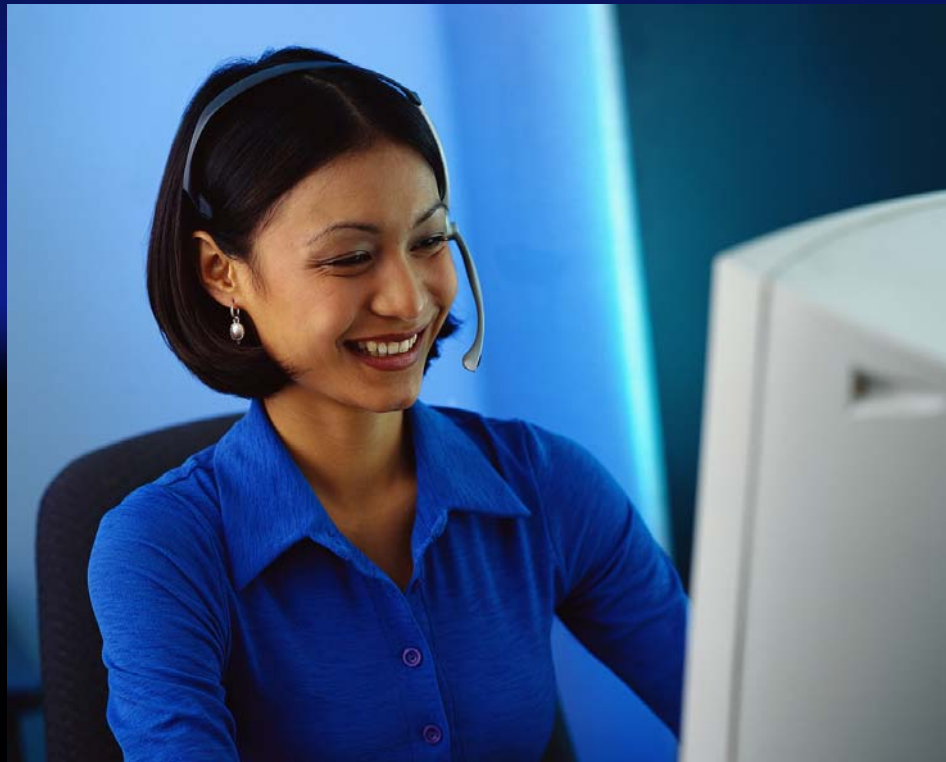
A confirmation email will be sent to **gmcgrath@csc.com**.

Thank you for using referral registration service.



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Steps 2 & 3 - Clerical Process





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PHIX Server - Demo Supervisor (Supervisor)

e View DashBoard Tools Windows Help

Dashboard

Referrals

Client Name	Referring Agency	Status	Assigned Nurse	DOB	Last Update
Moncada, Maria	Tri-City Hospital	New	Doroth Gillon	3/14/87	10/7/05
1					

Nurses

First Name	Last Name	Last Logon	City
Dorothy	Gillon	10/11/05 11:42:3	Escondido
Elizabeth	Inglis	10/11/05 11:30:0	Escondido
Hanna	Khazaeli	10/11/05 11:30:1	Escondido
Joanne	Klein	10/01/05 08:00:0	Escondido
Heather	Labelle	10/19/05 03:35:1	Escondido
Gisela	Lauer	10/11/05 01:26:5	Escondido
Deborah	Mcintosh	10/11/05 11:29:2	Escondido
Carol	Nickless	10/11/05 01:00:2	Escondido
Demo	Nurse	11/01/05 03:28:4	Escondido
Julianna	Rhinehart	10/11/05 11:31:0	Oceanside

Assign

Cases/Households (both assigned Referrals and Cases)

FirstName	LastName	Status	Gender	RelationshipType	CreatedDate	Birthdate
Donna	Monnum	Open	F	Head of Household	10/5/05 05:42:5	4/23/82
Martha	Monje	Open	F	Head of Household	10/05/05 05:37:3	11/21/86
Ileen	Morales	Open	F	Head of Household	10/05/05 05:37:2	5/09/04
Ventura	Morales	Open	M	Head of Household	10/05/05 05:37:3	9/11/03
Gisselle	Morales	Open	F	Head of Household	10/05/05 05:37:3	7/14/05



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Step 4 - Supervisor Process





BUSINESS PROCESS RE-ENGINEERING

PHIX Server - Demo Supervisor (Supervisor)

View DashBoard Tools Windows Help

DashBoard

Referrals

Client Name	Referring Agency	Status	Assigned Nurse	DOB	Last Update
Moncada, Maria	Tri-City Hospital	Pending	Nurse	3/14/87 12:00	10/7/05
Allee, Steve	Pomerado Health S	Pending	Labelle	2/02/93 12:00:00	10/07/05 01:28
Archer, Anne	Pomerado Health S	Pending	Nurse	3/02/60 12:00:00	10/07/05 01:57
Archer, Arnold	Pomerado Health S	Pending	Nurse	10/10/95 12:00:0	10/07/05 01:59
Girl, Baby	Kaiser	Pending	Nurse	10/07/05 12:00:0	10/08/05 03:08
Griffin, James	County of San Dieg	Pending	Labelle	8/05/05 12:00:00	10/07/05 08:25
Griffin, Meredith	County of San Dieg	Pending	Labelle	10/25/85 12:00:0	10/07/05 08:28
Jessica, Simpson	County of San Dieg	Pending	Nurse	9/10/03 12:00:00	10/07/05 10:18
Lincoln, Mary	Kaiser	Pending	Nurse	5/06/76 12:00:00	10/08/05 03:10
Lincoln, Todd	Kaiser	Pending	Nurse	5/06/05 12:00:00	10/08/05 03:09

Nurses

First Name	Last Name	Last Logon	City
Dorothy	Gillon	10/11/05 11:42:3	Escondido
Elizabeth	Inglis	10/11/05 11:30:0	Escondido
Hanna	Khazaeli	10/11/05 11:30:1	Escondido
Joanne	Klein	10/01/05 08:00:0	Escondido
Heather	Labelle	10/19/05 03:35:1	Escondido
Gisela	Lauer	10/11/05 01:28:5	Escondido
Deborah	Mcintosh	10/11/05 11:29:2	Escondido
Carol	Nickless	10/11/05 01:00:2	Escondido
Demo	Nurse	11/01/05 03:28:4	Escondido
Julianna	Rhinehart	10/11/05 11:31:0	Oceanside

Assign

Cases/Households (both assigned Referrals and Cases)

FirstName	LastName	Status	Gender	RelationshipType	CreatedDate	Birthdate
Maria	Moncada	Open		Head of Household	10/05/05 05:37:3	10/19/87
Martha	Monje	Open	F	Head of Household	10/05/05 05:37:3	11/21/86
Ileen	Morales	Open	F	Head of Household	10/05/05 05:37:2	5/09/04
Ventura	Morales	Open	M	Head of Household	10/05/05 05:37:3	9/11/03
Gisselle	Morales	Open	F	Head of Household	10/05/05 05:37:3	7/14/05
Karina	Morales	Open	F	Head of Household	10/05/05 05:37:3	10/14/88
Samuel	Morales	Open	M	Head of Household	10/05/05 05:37:3	1/02/05



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Step 5 - Nurse Process





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Caseload

Statu	Open Vis	Househ	DOB	Last Visit	Next Visit	Acuity	Program
		Adam, Alex	9/9/1986	10/8/2005 3:30	11/8/2005	Medium	
		Allen, Lene	7/28/2005	10/7/2005 10:30	11/7/2005	Medium	
		Allen, Tesh	5/18/1982			Medium	
		Allman, Ma	6/26/2003			Medium	
		Almanza, I	9/19/2004			Medium	
		Almaraz, A	4/21/2005			Medium	
		Alvarado,	4/24/2005			Medium	
		Ambriz, Re	1/1/1900			Medium	
		Andraca, G	11/19/1984			Medium	
		Aragon, Ba	1/1/1900			Medium	
		Aramula, Y	12/13/2004			Medium	
		Archer, An	3/2/1960	10/7/2005 3:15	11/7/2005	Medium	
		Arizmendi,	8/7/2002			Medium	
		Asta, Alice	7/8/1990	10/8/2005 4:15	11/8/2005	Medium	
		Atkins, Dia	11/29/1981			Medium	
		Banda, Ce	7/1/1972			Medium	
		Banda, Lau	1/12/1972			Medium	
		Becerra, M	1/1/1901			Medium	
		Becker, Del	2/20/2005			Medium	
		Beckoff, Ali	3/25/1979			Medium	
		Bell, Rahmi	1/7/2005			Medium	
		Benacka, S	9/18/1974			Medium	
		Benitez, Bg	2/4/2004			Medium	
		Benitez, Bg	2/4/2004			Medium	
		Bishop, Ch	1/14/1963			Medium	
		Bossworth,	4/21/1985			Medium	
		Bowen, Jer	1/28/2003			Medium	
		Bowen, Sh	4/29/1983			Medium	

New X Today 11 Day 17 Week 31 Month

2

Moncada.

If this visit is complete, verify the following information and click OK.

Visit End Date/Time: 2/23/2006 3:30 PM

Next Visit Date: 4/30/2006

OK

Skip

Cancel

Reminders

Show closed items

3

Client: Alex

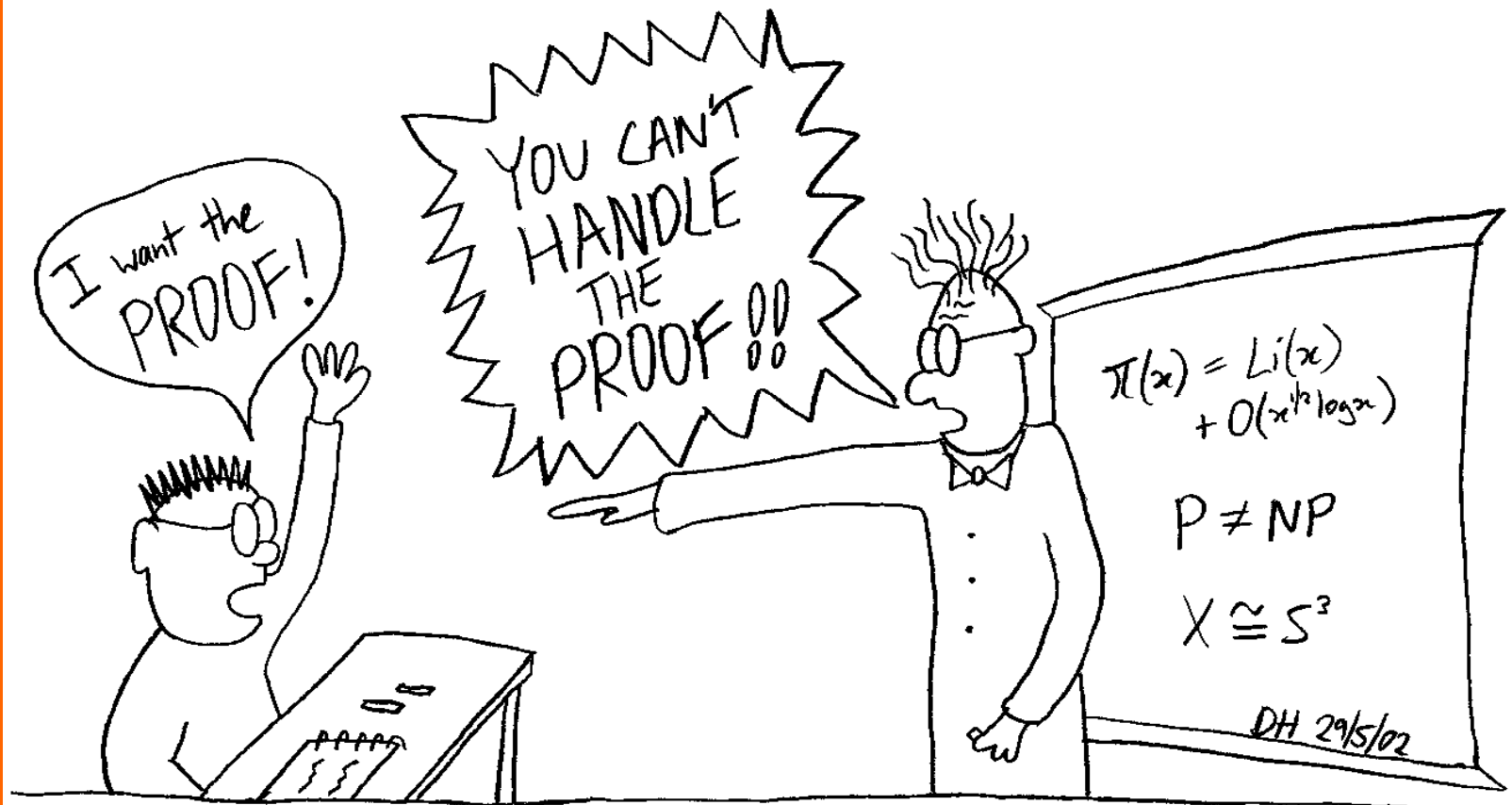
Status: Normal

Enter



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Outcomes





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Referral System

Situation	Pre-Pilot	Post-Pilot
Getting referral to nurse	18 paper steps	5 electronic steps
Referrals were accurate and complete	2%	100%
Average # of days to 1st client contact by nurse	54	13*

***11% of customers were seen on the same day as the referral**



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Client Service Time



Situation	Pre-Pilot	Post-Pilot
Visits resulting in “no service”	33%	11%
Average monthly # of 1 st contacts per Public Health Center	132	165



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Survey Results

Referral Agencies		Public Health Nurses	
Web-based referral utilization	5.0	Process involvement	4.4
Web-based referral training	5.0	Technical training	4.4
Technical support	5.0	Tablet referral process	3.8
Referral tracking (JAHCO)	5.0	Tablet scheduling	4.4
		Tablet PHN forms	2.7
		Technical support	3.8
Overall Score	5.0	Overall Score	3.9



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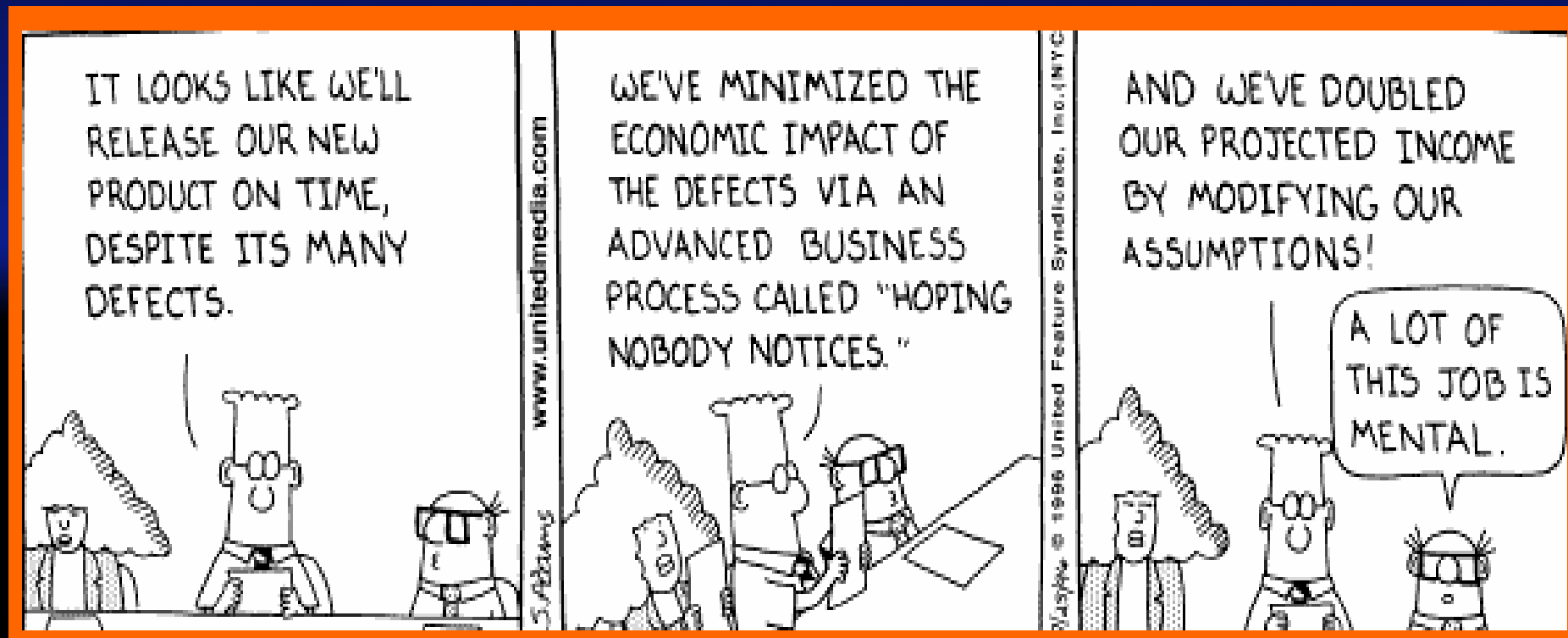
Summary of Key Performance Outcomes

	Target	Results
Increase time available for direct services	20-25%	25%
Reduce time elapsed between case referral and customer contact	25%	75%



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Return on Investment





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Methodology

- Utilizes the Pilot Project and roll out projections.
- Costs considered for Phases 1-3:
 - Information Technology
 - Staffing
 - Consultants



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Pilot Costs		Total
IT Costs		
Labor (IT Vendor)		\$756,470
Software		\$28,050
Hardware		\$39,680
Evaluation/Consultant Costs		\$19,800
TOTAL Pilot Costs =		\$844,000



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Return on Investment – Summary

- Up front costs captured within 12 months
- Cost avoidance of \$2,008,406 per FY
 - 25% increased productivity without BPR would require an additional 23 staff years (FTEs).
- Long-term savings
 - organizational
 - societal





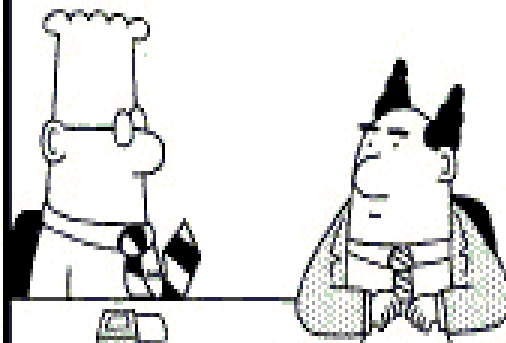
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Next Steps

I feel pretty!
Oh so pretty! ...



www.dilbert.com scottadam@aol.com



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... Right, then.
Moving on ...





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Next Steps

Phase 4 – Technology Enhancements

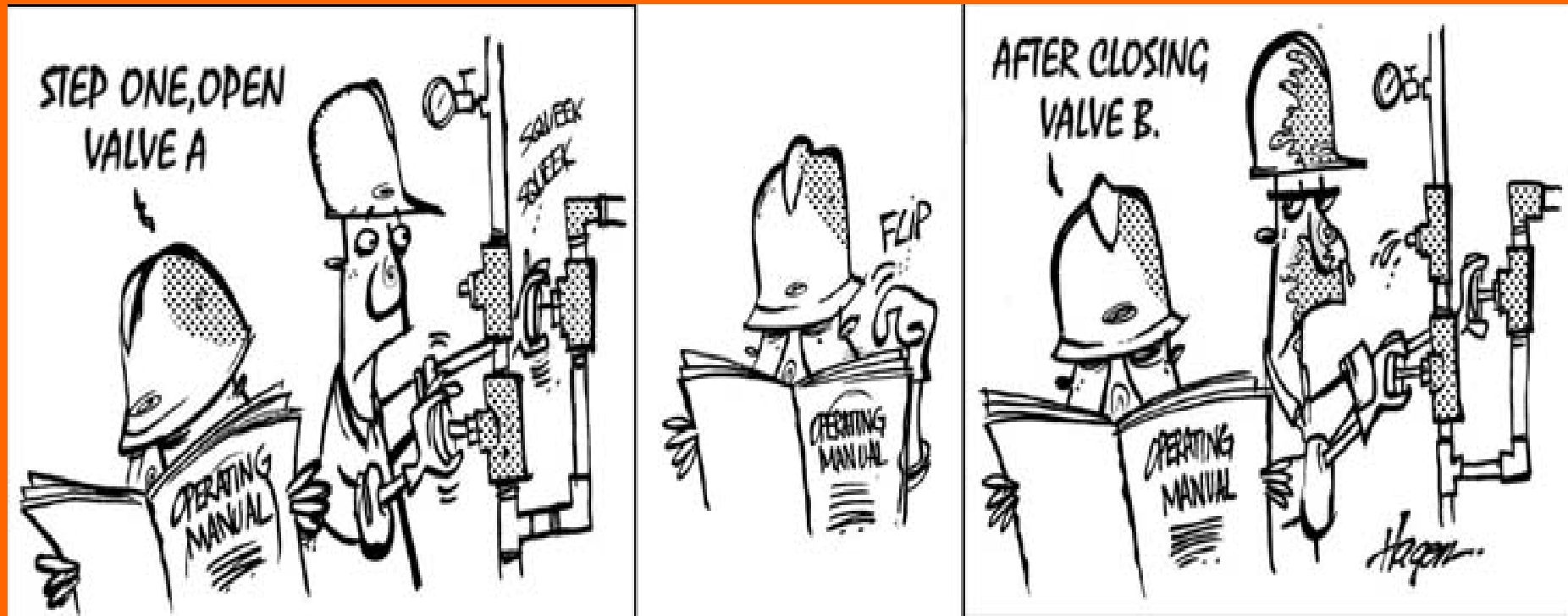
Agency-wide Rollout

Societal Impact Analysis



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Lessons Learned





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Must Have:

- Thorough planning process
- Zero-base operations
- Staff participation and buy-in
- Idea generation
- Flexibility and patience
- Budget in advance



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Understand That:

- Technology enhancements are not the only solution in BPRs
- Return on investment will occur in out years
- Technology development phase requires sufficient time
- Other unforeseen benefits will be identified throughout the process
- BPR forces organizational culture change that sustains innovation and continuous improvement



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For More Information

www.sandiego-mrw.org



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Thank You.

QUESTIONS?